

Remarks/Arguments:

Information Disclosure Statement

Applicants respectfully request acknowledge by the Examiner of the Information Disclosure Statement filed August 26, 2003.

Pending Claims

Claims 1, 2 and 10 have been rejected under 35 USC §102(e) as being anticipated by Ooba et al. (US 6,084,050). It is respectfully submitted that claims 1, 2, and 10, as amended, are patentable over Ooba et al. for the reasons set forth below.

Claims 3-9 and 11-19 have been withdrawn, as being drawn toward non-elected species.

New claim 20 has been added.

Claims 1, 2, and 10

Ooba et al. disclose an optical element in Figures 9A and 9B, which includes a substrate (23), and a material with a refractive index higher than that of the substrate (22). The refractive index of the material (22) is shown to vary periodically in the direction of light propagation.

The present invention, as recited in amended claim 1, contains a feature which is neither disclosed, nor suggested by the Ooba et al., namely:

...a material which has a refractive index higher than that of said substrate...

...wherein the refractive index in a part of said material is substantially continuously monotone increasing or decreasing in a direction of light propagation. (Emphasis Added)

This feature, which is illustrated as element 34 in Figure 3(a), is distinguished from the material (element 22 in Figures 10A and 10B) of Ooba et al. Ooba et al. do not disclose or suggest a substantially continuously monotone increasing or decreasing variation in the index of refraction of this material in a direction of light propagation.

Therefore, for the reasons set forth above, claim 1, as amended, is not subject to rejection under 35 USC §102(e) as being anticipated by Ooba et al. As claims 2 and 10, as amended, are dependent on claim 1, these claims are not subject to this rejection as well.

Newly Added Claim 20

Newly added claim 20 adds no new matter. Support for claim 20 may be found in previously presented claim 2. The present invention, as recited in newly added claim 20, contains a feature which is neither disclosed, nor suggested by the Ooba et al., namely:

...a material which has a refractive index higher than that of said substrate...
...wherein the refractive index in a part of said material... ..is substantially continuously monotone increasing or decreasing in a direction substantially perpendicular to said direction of light propagation.
(Emphasis Added)

Therefore, consideration and allowance of newly added claim 20 is requested.

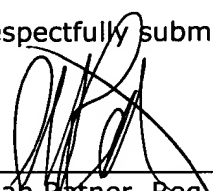
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Reply to Office Action of October 7, 2003

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CONCLUSION

Based on the foregoing amendment and remarks, Applicants respectfully submit that claims 1, 2, and 10, as amended, and newly added claim 20 are in condition for allowance. Accordingly, reconsideration and allowance of all pending claims are respectfully requested.

Respectfully submitted,



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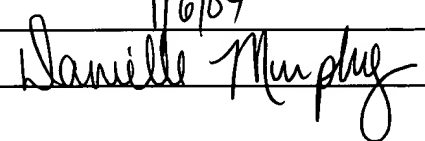
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Dated: January 6, 2004

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